

ABSTRACT OF THE DISCLOSURE

A nonvolatile semiconductor memory includes a plurality of nonvolatile memory cells each having a gate, a drain and a source to hold data corresponding to a threshold voltage level. The memory further includes a reference current generation circuit which generates a reference current, the reference current generation circuit including at least one reference cell and an amplification circuit which amplifies a current flowing through the reference cell, and a ratio of an amplification factor of current in a program verify mode to an amplification factor of current in a data read mode is larger than 1, and a sense amplifier which compares the reference current with a current flowing through selected ones of the nonvolatile memory cells and reads data held in the selected ones of the nonvolatile memory cells.